



SPACE SHUTTLE PROGRAM
Space Shuttle Vehicle Engineering Office
NASA Johnson Space Center, Houston, Texas



STS-105 FLIGHT READINESS REVIEW

FERRY READINESS August 1, 2001



STS-105 Flight Readiness Review Ferry Readiness

Presenter **Don L. McCormack, Jr.**

Date **Aug 1, 2001**

Page **2**

Ferry Plan Summary

- Ferry Planning Readiness Review conducted on 7/20/01 with no issues identified
- Ferry Flight Readiness Review to be conducted one day prior to planned ferry date
- Hardware summary:
 - Orbiter: OV-103 (Discovery)
 - NEOM Ferry Weight (lbs): 222079 (no fluids off-loaded)
 - NEOM Ferry Center of Gravity (in): X_o 1115.9 Y_o -0.7 Z_o 374.1
 - » NEOM mass properties are within specified limits – requires 800 lbs of Orbiter middeck ballast (ballast kit available at DFRC)
 - Attach hardware and ferry plugs are ready to support
 - Tailcone 2 ready to support
 - Shuttle Carrier Aircraft (SCA): NASA 911
- Configuration drawings have been released



STS-105 Flight Readiness Review Ferry Readiness

Presenter Don L. McCormack, Jr.

Date Aug 1, 2001

Page 3

Ferry Plan Summary - Continued

- DFRC seven day turnaround with ready-to-ferry on day eight (early morning)
- Flight plan (unaffected by Edwards runway construction beginning 8/1/01):
 - Day 1: Edwards AFB, CA to Davis-Monthan AFB, AZ (refuel)
Davis-Monthan AFB, AZ to Dyess AFB, TX (rest overnight)
 - Day 2: Dyess AFB, TX to Eglin AFB, FL (refuel)
Eglin AFB, FL to KSC SLF, FL
- Weather alternates and emergency landing fields selected
- Pathfinder: NASA or USAF KC-135 (if purge equipment not deployed)
USAF C-141 or C-17 (if purge equipment deployed)
- Purge - decision to deploy purge equipment will be based on predicted temperatures at potential ferry overnight stop locations – not likely to deploy
 - Purge circuit 2 (MPLM - ambient air temperature below 45 °F in excess of 2-hours)
 - Purge circuit 1 (OMS/RCS - ambient air temperature below 45 °F)



STS-105 Flight Readiness Review Ferry Readiness

Presenter **Don L. McCormack, Jr.**

Date **Aug 1, 2001**

Page **4**

STS-105 FERRY READINESS STATEMENT

A Ferry Planning Readiness Review was conducted in accordance with the Space Shuttle Vehicle Engineering Office flight preparation process plan contained in NSTS 08117, Requirements and Procedures for Certification of Flight Readiness. This certifies that aircraft, equipment, and ferry requirements are ready to support Orbiter ferry operations.

**Don L. McCormack, Jr.
MV/Manager, Ferry Operations**